Index of Published Material—1962

MINING WORLD

Volume 24, Numbers 1 through 4 and 6 through 13

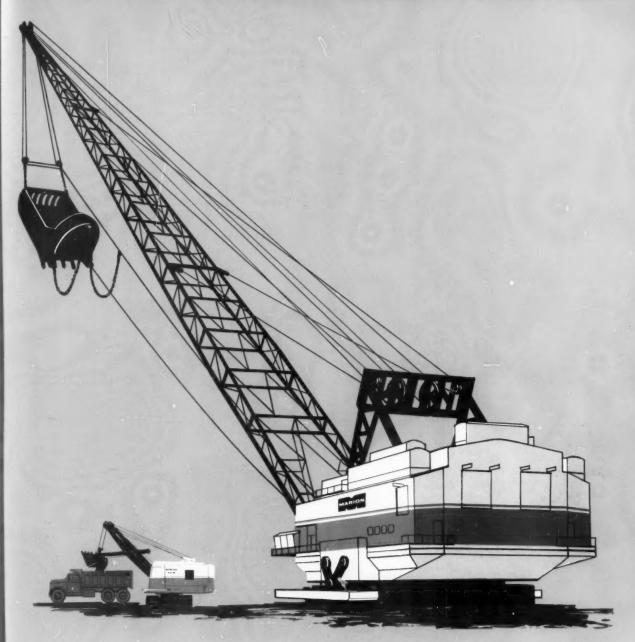
AUTHORS INDEX	Month Page	Month Page	Month Page
Month Page	How Recent Magma Mine Fire	Kennecott and American Agri- cultural Join to Investigate	D.M.B.D. Makes Success of 60- Ton a Day Cu-Moly Opera-
Amstutz, G. C. How Microscopy Can Increase	Was Brought Under Control May 20	N. Carolina Phosphate De-	tionJune 27
Recovery in Your Mill Dec 19	How Utah Copper Division Uses New Equipment and New Mining	positJune 19	Duval Options Copper Canyon; Seeks Nevada Porphyry Cop-
Argall, George O., Jr. Asarco's Mission Copper—Com-	Methods Dec 14 Kennecott's New Crushing Fa-	POTASH	perOct 11 Duval Makes Three Major Dis-
plete Report January Issue Asbestos Awakens Mother Lode	cilities at Hayden July 27	Duval Makes Three Major Dis-	coveries-K:O, Cu, MoApr 18
Asbestos Awakens Mother Lode at Jefferson Lake's New	Kennecott-United States Smelt-	coveries—K ₂ O, Cu, MoApr 18 Homestake to Finance Phos-	From Oates to Eminence: An-
	ing Deal Will Enlarge Utah Pit Nov 19	phate-Potash Operation in	other Missouri Lead Belt? . Oct 29 Grinding Problems? Have
Here's the Preview for Mining in 1962	Mission Mill Circuit Flexibility	Peru	You Considered Vibrating Ball Mill? June 24
Here's the Preview for Mining in 1962 Feb 19 How Utah Copper Division Uses	with Automatic Density Con- trol Jan 34	New Potash Mine for Duval	meat: Tire Destroyer Now Gives
New Equipment and New Mining Methods Dec 14	Mission Means More Mining by	Sulphur and Potash Dec 13 Quicksand at Canadian Potash	Clue to Longer Tire Life . May 25 Hecla Joins American Zinc
Rogert John R	ASARCO Jan 21 Mission Ore Body is Prophyry	Shaft	for Major Missouri Explora-
Chino's Program for Progress Means Improved Mill-	Copper Jan 22 New Copper Mine for Duval	Texas Guir's Moan Potasn July 20	
Smelter Aug 22	Sulphur and PotashDec 13	SILVER	Here's the Preview for Mining in 1962
How the Britannia Mine Cuts Costs Apr 22	Newmont's South African Mine	Camp Bird's New Flotation	HMS Drum Makes Three-product Separation
How Recent Magma Mine Fire	Radiation Device Helps Ken-	MillFeb 16 How About Silver? What Now	Homestake to Finance
Was Brought Under Control May 20 Radiation Device Helps Ken- necott Save 5,000,000 Gallons of	necott Save 5,000,000 Gallons Of Water a Day Feb 24	with Higher Price Aug 18	Phosphate-Potash Operation in Peru Nov 19
necott Save 5,000,000 Gallons of	Water a Day Feb 24 Ray Produces Milk of Lime Re-	TACONITE	How About Silver? What Now
Water a DayFeb 24 Coates, D. F.	Santa Rita: New Projects and	Atlantic City: West's First Ta-	with Higher Price? Aug 18 How AN-FO Blasting Will
How to Minimize Open Pit Wall	Equipment Improve Open	conite Operation on Sched-	Save Money in Underground
Failures	Pit Nov 28 Shovel-Truck Pit with Easy Strip-	uleOct 16	Mine
Lucky Friday's New Mill an Example of Modern Design Mar 28	ping at MissionJan 24	URANIUM	Cost
Dayton, Stanley H.	Three-stage, Open-circuit Crushing at Mission Jan 32	Canadians Sell U ₃ O ₈ at \$4.10 a	How HMS Raises Grade of Old Dick's Copper-Zinc Ore Aug 12
Cut and Fill stope Mechanized with Diesel Equipment Oct 12	Tsumeb Corp. Builds New Lead-	PoundSept 21 Mi Vida's 10th Birthday; Charlie	How Microscopy Can Increase
Fahlstrom, P. H:son	copper Smelter in Africa Mar 22	Steen Sells for Millions July 19	Recovery in Your Milling Circuit Dec 18
Autogenous Grinding Installed at Vassbo (Part I) Sept 30	FLUORSPAR	ZINC	How Mission Mill Was Designed
Vassbo: Autogenous Grinding	HMS Drum Makes Three-product	Bunker Hill Mucks Inclined Shaft	After Pilot Testing Jan 30 How Modern Materials Han-
Liberates Galena (Part II). Oct 18 Hukki, Dr. R. T.	Minera Frisco's Sulphide Tailing	With CrydermanDec 14	dling Improves Utah Smelter
Screening Cell July 30 Lange, L. H.	is Fluorspar Float Feed Nov 25	Camp Bird's New Flotation MillFeb 16	Metallurgy Oct 24 How Recent Magma Mine Fire
Minera Frisco's Sulphide Tailing	GOLD	Can You Qualify for Lead-Zinc	Was Brought Under Con- trol
is Fluorspar Float Feed Nov 25	McKinney Mines Starts	Stabilization Payments? Sept 21 Hecla Joins American Zinc for	How to Minimize Open Pit
McCaslin, John G. Breaking Rocks with Electric-	Development at Nevada's Atlanta	Hecla Joins American Zinc for Major Missouri Exploration Pro-	Wall Failures
ity Feb 23	MineOct 11	gram	New Equipment and New
McKnight, Edwin T. How about Silver? What Now	IRON	Costs	Mining Methods Dec 14 International Minerals Conquers
with Higher Price Aug 18	Atlantic City: West's First Taconite Operation On Sched-	Dick's Copper-Zinc Ore Aug 12	Quicksand at Canadian Potash
Paricio, Ray Grinding Problems? Have You	uleOct 16 Caland's Open Pits Now	Lucky Friday's New Mill an Ex- ample of Modern Design Mar 28	Shaft Nov 20 Introducing Bert Thut—Our New
Considered Vibrating Mill? June 24	Caland's Open Pits Now Major Source of Inland's Iron	ample of Modern Design	Chicago District Manager Aug 11
Sullivan, John D. What's Happened with	OreJuly 22	TITLE INDEX	Kennecott and American Agri- cultural Join to Investigate N.
Lead?Apr 20 Thut, A. B.	Cyprus Mines-Utah Construction- Gold Fields Awarded Australian	Arizona's Second Computer Sym-	Carolina Phosphate Deposit June 19 Kennecott's Major Missouri Lead
International Minerals Conquers	Iron ConcessionApr 18	Asbestos Awakens Mother Lode	Find-Official July 19 Kennecott's New Crushing Fa-
Quicksand at Canadian Potash Shaft Nov 20	LEAD	at Jefferson Lake's New Mine	Kennecott's New Crushing Fa-
Shaft	Autogenous Grinding Installed at	Atlantic City: West's First Ta-	cilities at HaydenJuly 27 Kennecott-United States
Breaking Rocks with Electricity Feb 23	Vassbo: (Part I)	conite Operation on Sched-	Smelting Deal Will Enlarge Utah
	Liberates Galena (Part II) Oct 19	uleOct 16 Autogenous Grinding Installed at	Pit
COMMODITIES INDEX	Bunker Hill Mucks Inclined Shaft With Cryderman Dec 24	Vassbo (Part I)Sept 30	ample of Modern DesignMar 28 Masked Tractor Operator Wears
ASBESTOS	Can You Qualify for Lead-Zinc	Beryllium Associates Develops Im- portant Chrysoberyl Ore Re-	Protective Filtered-Air Helmet
Asbestos Awakens Mother Lode	Stabilization Payments? Sept 21 Camp Bird's New Flotation	portant Chrysoberyl Ore Re- serves	Mi Vida's 10th Birthday; Apr 26
at Jefferson Lake's New Mine Sept 22	MillFeb 16	Feb 23	Charlie Steen Sells for Mil-
	From Oates to Eminence: Another Missouri Lead Belt? Oct 29	Bucket Wheel Can Cut Mine Stripping Costs Sept 36	lionsJuly 19 McKinney Mines Starts Develop-
BARITE	HMS Drum Makes Three-product	Bunker Hill Mucks Inclined Shaft	ment at Nevada's Atlanta
HMS Drum Makes Three- product Separation Apr 24	Separation	With Cryderman Dec 24 Caland Open Pits Now	MineOct 11 Mill Circuit Flexibility with Auto-
	Find—Official	Major Source of Inland's Iron	matic Density ControlJan 34
COPPER	Lucky Friday's New Mill an Ex- ample of Modern Design . Mar 28	Camp Bird's New Flotation	Minera Frisco's Sulphide Tailing is Fluorspar Float Feed Nov 25
Copper for Inspiration Sept 28	Northgate-Frie's Major Lead Dis-	Camp Bird's New Flotation Mill Feb 16 Can You Qualify for Lead-Zinc	Mining Industry Awards for
Copper Range Acquires Control	What's Happened with	Can You Qualify for Lead-Zinc Stabilization Payments? Sept 21	1961Feb 22
of Appalachian Sulphides Aug 11 Copper Range, Calumet & Hecla	Lead:Apr 20	Canadians Sell UaOs at \$4.10 a	Mission Means More Mining by ASARCOJan 21
Evehange Michigan Cu	Tsumeb Corp. Builds New Lead- Copper Smelter in Africa Mar 22	PoundSept 21 Chambishi; Third Copperbelt	Mission Ore Body is Porphyry
Cut and Fill Stone Mechanized	MOLYBDENUM	Open Pit to Produce in 1965. July 19	Newmont's South African Mine
Lands Oct 11 Cut and Fill Stope Mechanized with Diesel Equipment Oct 12 Chambishi Third Connerhelt	Climax Molybdenum-Danish	Chino's "Program for Progress" Means Improved Mill-	ExpansionsSept 35
Chambishi; Third Copperbelt Open Pit to Produce in 1956 July 19	Group Exploring in Green-	Smelter	Northgate-Eire's Major Lead Dis- covery
Open Pit to Produce in 1956 July 19 D.M.B.D. Makes Success of 60- Ton a Day Cu-Moly Opera-	land	Copper for Inspiration Sept 28	Overburden Drilling Can be
tion June 27	coveries—K ₂ O, Cu, Mo . Apr 18 D.M.B.D. Makes Success of 60-	Climax Molybdenum-Danish	Used at Open PitsOct 28 Radiation Device Helps Kenne-
Daniel Maker Three Major Dis-	D.M.B.D. Makes Success of 60- Ton a Day Cu-Moly Opera-	Group Exploring in Green- land	cott Save 5,000,000 Gallons of
Coveries—K2O, Cu, MoApr 18 Duval Options Copper Canyon; Seeks Nevada Porphyry	tionJune 27	Copper Range Acquires Con- trol of Appalachian Sulphides,	Water a Day
Seeks Nevada Porphyry	NICKEL	Inc	gent Using Ellernan Vertical Cal-
Copper Oct 11 How Britannia Mine Cuts	Success Comes to B.C.'s Most	Copper Range, Calumet & Hecla	Safety at Sapin Mar 34
How Dritannia Mine Cuts	COLUMN TO A COLUMN TO THE PARTY OF THE PARTY	Exchange Michigan Cu Land Oct II	San Francisco Plays Host
Costs HMS Poices Code of Old	Famous Nickel Mine May 28		San Francisco Flays Host
How HMS Raises Grade of Old Dick's Copper-Zinc Ore . Aug 12	Famous Nickel Mine May 28 PHOSPHATE	Cut and Fill Stope Mechanized	to the 1962 AMC Mining
How HMS Raises Grade of Old Dick's Copper-Zinc Ore . Aug 12 Hope Mission Mill Was Designed	Famous Nickel MineMay 28 PHOSPHATE	Cut and Fill Stope Mechanized with Diesel Equipment Oct 12	to the 1962 AMC Mining Show
How HMS Raises Grade of Old Dick's Copper-Zinc Ore . Aug 12	Famous Nickel Mine May 28	Cut and Fill Stope Mechanized	to the 1962 AMC Mining Show

Index of Published Material—1962

MINING WORLD

Volume 24, Numbers 1 through 4 and 6 through 13

AUTHORS INDEX	Month Page	Month Page	Month Page
Month Page	How Recent Magma Mine Fire	Kennecott and American Agri- cultural Join to Investigate	D.M.B.D. Makes Success of 60- Ton a Day Cu-Moly Opera-
Amstutz, G. C. How Microscopy Can Increase	Was Brought Under Control May 20	N. Carolina Phosphate De-	tionJune 27
Recovery in Your Mill Dec 19	How Utah Copper Division Uses New Equipment and New Mining	positJune 19	Duval Options Copper Canyon; Seeks Nevada Porphyry Cop-
Argall, George O., Jr. Asarco's Mission Copper—Com-	Methods Dec 14 Kennecott's New Crushing Fa-	POTASH	perOct 11 Duval Makes Three Major Dis-
plete Report January Issue Asbestos Awakens Mother Lode	cilities at Hayden July 27	Duval Makes Three Major Dis-	coveries-K:O, Cu, MoApr 18
Asbestos Awakens Mother Lode at Jefferson Lake's New	Kennecott-United States Smelt-	coveries—K ₂ O, Cu, MoApr 18 Homestake to Finance Phos-	From Oates to Eminence: An-
	ing Deal Will Enlarge Utah Pit Nov 19	phate-Potash Operation in	other Missouri Lead Belt? . Oct 29 Grinding Problems? Have
Here's the Preview for Mining in 1962	Mission Mill Circuit Flexibility	Peru	You Considered Vibrating Ball Mill? June 24
Here's the Preview for Mining in 1962 Feb 19 How Utah Copper Division Uses	with Automatic Density Con- trol Jan 34	New Potash Mine for Duval	meat: Tire Destroyer Now Gives
New Equipment and New Mining Methods Dec 14	Mission Means More Mining by	Sulphur and Potash Dec 13 Quicksand at Canadian Potash	Clue to Longer Tire Life . May 25 Hecla Joins American Zinc
Rogert John R	ASARCO Jan 21 Mission Ore Body is Prophyry	Shaft	for Major Missouri Explora-
Chino's Program for Progress Means Improved Mill-	Copper Jan 22 New Copper Mine for Duval	Texas Guir's Moan Potasn July 20	
Smelter Aug 22	Sulphur and PotashDec 13	SILVER	Here's the Preview for Mining in 1962
How the Britannia Mine Cuts Costs Apr 22	Newmont's South African Mine	Camp Bird's New Flotation	HMS Drum Makes Three-product Separation
How Recent Magma Mine Fire	Radiation Device Helps Ken-	MillFeb 16 How About Silver? What Now	Homestake to Finance
Was Brought Under Control May 20 Radiation Device Helps Ken- necott Save 5,000,000 Gallons of	necott Save 5,000,000 Gallons Of Water a Day Feb 24	with Higher Price Aug 18	Phosphate-Potash Operation in Peru Nov 19
necott Save 5,000,000 Gallons of	Water a Day Feb 24 Ray Produces Milk of Lime Re-	TACONITE	How About Silver? What Now
Water a DayFeb 24 Coates, D. F.	Santa Rita: New Projects and	Atlantic City: West's First Ta-	with Higher Price? Aug 18 How AN-FO Blasting Will
How to Minimize Open Pit Wall	Equipment Improve Open	conite Operation on Sched-	Save Money in Underground
Failures	Pit Nov 28 Shovel-Truck Pit with Easy Strip-	uleOct 16	Mine
Lucky Friday's New Mill an Example of Modern Design Mar 28	ping at MissionJan 24	URANIUM	Cost
Dayton, Stanley H.	Three-stage, Open-circuit Crushing at Mission Jan 32	Canadians Sell U ₃ O ₈ at \$4.10 a	How HMS Raises Grade of Old Dick's Copper-Zinc Ore Aug 12
Cut and Fill stope Mechanized with Diesel Equipment Oct 12	Tsumeb Corp. Builds New Lead-	PoundSept 21 Mi Vida's 10th Birthday; Charlie	How Microscopy Can Increase
Fahlstrom, P. H:son	copper Smelter in Africa Mar 22	Steen Sells for Millions July 19	Recovery in Your Milling Circuit Dec 18
Autogenous Grinding Installed at Vassbo (Part I) Sept 30	FLUORSPAR	ZINC	How Mission Mill Was Designed
Vassbo: Autogenous Grinding	HMS Drum Makes Three-product	Bunker Hill Mucks Inclined Shaft	After Pilot Testing Jan 30 How Modern Materials Han-
Liberates Galena (Part II). Oct 18 Hukki, Dr. R. T.	Minera Frisco's Sulphide Tailing	With CrydermanDec 14	dling Improves Utah Smelter
Screening Cell July 30 Lange, L. H.	is Fluorspar Float Feed Nov 25	Camp Bird's New Flotation MillFeb 16	Metallurgy Oct 24 How Recent Magma Mine Fire
Minera Frisco's Sulphide Tailing	GOLD	Can You Qualify for Lead-Zinc	Was Brought Under Con- trol
is Fluorspar Float Feed Nov 25	McKinney Mines Starts	Stabilization Payments? Sept 21 Hecla Joins American Zinc for	How to Minimize Open Pit
McCaslin, John G. Breaking Rocks with Electric-	Development at Nevada's Atlanta	Hecla Joins American Zinc for Major Missouri Exploration Pro-	Wall Failures
ity Feb 23	MineOct 11	gram	New Equipment and New
McKnight, Edwin T. How about Silver? What Now	IRON	Costs	Mining Methods Dec 14 International Minerals Conquers
with Higher Price Aug 18	Atlantic City: West's First Taconite Operation On Sched-	Dick's Copper-Zinc Ore Aug 12	Quicksand at Canadian Potash
Paricio, Ray Grinding Problems? Have You	uleOct 16 Caland's Open Pits Now	Lucky Friday's New Mill an Ex- ample of Modern Design Mar 28	Shaft Nov 20 Introducing Bert Thut—Our New
Considered Vibrating Mill? June 24	Caland's Open Pits Now Major Source of Inland's Iron	ample of Modern Design	Chicago District Manager Aug 11
Sullivan, John D. What's Happened with	OreJuly 22	TITLE INDEX	Kennecott and American Agri- cultural Join to Investigate N.
Lead?Apr 20 Thut, A. B.	Cyprus Mines-Utah Construction- Gold Fields Awarded Australian	Arizona's Second Computer Sym-	Carolina Phosphate Deposit June 19 Kennecott's Major Missouri Lead
International Minerals Conquers	Iron ConcessionApr 18	Asbestos Awakens Mother Lode	Find-Official July 19 Kennecott's New Crushing Fa-
Quicksand at Canadian Potash Shaft Nov 20	LEAD	at Jefferson Lake's New Mine	Kennecott's New Crushing Fa-
Shaft	Autogenous Grinding Installed at	Atlantic City: West's First Ta-	cilities at HaydenJuly 27 Kennecott-United States
Breaking Rocks with Electricity Feb 23	Vassbo: (Part I)	conite Operation on Sched-	Smelting Deal Will Enlarge Utah
	Liberates Galena (Part II) Oct 19	uleOct 16 Autogenous Grinding Installed at	Pit
COMMODITIES INDEX	Bunker Hill Mucks Inclined Shaft With Cryderman Dec 24	Vassbo (Part I)Sept 30	ample of Modern DesignMar 28 Masked Tractor Operator Wears
ASBESTOS	Can You Qualify for Lead-Zinc	Beryllium Associates Develops Im- portant Chrysoberyl Ore Re-	Protective Filtered-Air Helmet
Asbestos Awakens Mother Lode	Stabilization Payments? Sept 21 Camp Bird's New Flotation	portant Chrysoberyl Ore Re- serves	Mi Vida's 10th Birthday; Apr 26
at Jefferson Lake's New Mine Sept 22	MillFeb 16	Feb 23	Charlie Steen Sells for Mil-
	From Oates to Eminence: Another Missouri Lead Belt? . Oct 29	Bucket Wheel Can Cut Mine Stripping Costs Sept 36	lionsJuly 19 McKinney Mines Starts Develop-
BARITE	HMS Drum Makes Three-product	Bunker Hill Mucks Inclined Shaft	ment at Nevada's Atlanta
HMS Drum Makes Three- product Separation Apr 24	Separation	With Cryderman Dec 24 Caland Open Pits Now	MineOct 11 Mill Circuit Flexibility with Auto-
	Find—Official	Major Source of Inland's Iron	matic Density ControlJan 34
COPPER	Lucky Friday's New Mill an Ex- ample of Modern Design . Mar 28	Camp Bird's New Flotation	Minera Frisco's Sulphide Tailing is Fluorspar Float Feed Nov 25
Copper for Inspiration Sept 28	Northgate-Frie's Major Lead Dis-	Camp Bird's New Flotation Mill Feb 16 Can You Qualify for Lead-Zinc	Mining Industry Awards for
Copper Range Acquires Control	What's Happened with	Can You Qualify for Lead-Zinc Stabilization Payments? Sept 21	1961Feb 22
of Appalachian Sulphides Aug 11 Copper Range, Calumet & Hecla	Lead:Apr 20	Canadians Sell UaOs at \$4.10 a	Mission Means More Mining by ASARCOJan 21
Evehange Michigan Cu	Tsumeb Corp. Builds New Lead- Copper Smelter in Africa Mar 22	PoundSept 21 Chambishi; Third Copperbelt	Mission Ore Body is Porphyry
Cut and Fill Stone Mechanized	MOLYBDENUM	Open Pit to Produce in 1965. July 19	Newmont's South African Mine
Lands Oct 11 Cut and Fill Stope Mechanized with Diesel Equipment Oct 12 Chambishi Third Connerhelt	Climax Molybdenum-Danish	Chino's "Program for Progress" Means Improved Mill-	ExpansionsSept 35
Chambishi; Third Copperbelt Open Pit to Produce in 1956 July 19	Group Exploring in Green-	Smelter	Northgate-Eire's Major Lead Dis- covery
Open Pit to Produce in 1956 July 19 D.M.B.D. Makes Success of 60- Ton a Day Cu-Moly Opera-	land	Copper for Inspiration Sept 28	Overburden Drilling Can be
tion June 27	coveries—K ₂ O, Cu, Mo . Apr 18 D.M.B.D. Makes Success of 60-	Climax Molybdenum-Danish	Used at Open PitsOct 28 Radiation Device Helps Kenne-
Daniel Maker Three Major Dis-	D.M.B.D. Makes Success of 60- Ton a Day Cu-Moly Opera-	Group Exploring in Green- land	cott Save 5,000,000 Gallons of
Coveries—K2O, Cu, MoApr 18 Duval Options Copper Canyon; Seeks Nevada Porphyry	tionJune 27	Copper Range Acquires Con- trol of Appalachian Sulphides,	Water a Day
Seeks Nevada Porphyry	NICKEL	Inc	gent Using Ellernan Vertical Cal-
Copper Oct 11 How Britannia Mine Cuts	Success Comes to B.C.'s Most	Copper Range, Calumet & Hecla	Safety at Sapin Mar 34
How Dritannia Mine Cuts	COLUMN TO A COLUMN TO THE PARTY OF THE PARTY	Exchange Michigan Cu Land Oct II	San Francisco Plays Host
Costs HMS Poices Code of Old	Famous Nickel Mine May 28		San Francisco Flays Host
How HMS Raises Grade of Old Dick's Copper-Zinc Ore . Aug 12	Famous Nickel Mine May 28 PHOSPHATE	Cut and Fill Stope Mechanized	to the 1962 AMC Mining
How HMS Raises Grade of Old Dick's Copper-Zinc Ore . Aug 12 Hope Mission Mill Was Designed	Famous Nickel MineMay 28 PHOSPHATE	Cut and Fill Stope Mechanized with Diesel Equipment Oct 12	to the 1962 AMC Mining Show
How HMS Raises Grade of Old Dick's Copper-Zinc Ore . Aug 12	Famous Nickel Mine May 28	Cut and Fill Stope Mechanized	to the 1962 AMC Mining Show



This Ten-Million-Pounder Walks to Work

The new 8800 is twice as large as any walking dragline in the world. It weighs as much as 3,000 automobiles, handles buckets up to 100 yards, booms to 275 feet. It can dig 12 stories below grade—swing a tenth of a mile—dump on top of a 14-story building. Marion Walkers work in 21 states—in 15 other countries—on five continents. 25 of them went to work in the last 3 years. They are backed by 20 years of the most dependable, low-unit-cost excavating records the world has ever known in stripping, mining and heavy construction. See your Marion Man about the reasons for this preference or write to Marion Power Shovel Company, Marion, Ohio.

A 1-yard Marion 48-M is shown with the Marion 8800 for size comparison.



Marion Power Shovel and "Quick-Way" Crane-Shovel are Divisions of Universal Marion Corp. Marion—¾ to 150 cu. yd. excavators and 21 to 100 ton cranes. "Quick-Way"—¾ to 1 cu. yd. excavators and 8½ to 25 ton cranes.

Screening CellJuly	30
Shovel-truck Pit with Easy Strip-	
pingJan	24
Special Havana Report-Cuban	
Mining TodayFeb	4
Success Comes to B.C.'s Most Fa-	
mous Nickel MineMay	
Texas Gulf's Moab Potash July	20
Three-Stage, Open-Circuit Crush-	60
ing at MissionJan	20
ing at Mission	34
Tsumeb Corp. Builds New Lead-	00
Copper Smelter in Africa Mar	22
Vassbo: Autogenous Grinding	
Liberates Galena (Part II) Oct	19
White Pine Uses New	
Hinged - center Telescopic - body	
TruckFeb	
What's Happened with	
LeadApr	20
Wire Line Diamond Drilling	40
Goes UndergroundJune	20
cores convergiouslyJune	20
COMPANY INDEX	

COMPANY INDEX

American Agricultural Chemical	
American Agricultural Chemical CoJune American Metal Climax,	19
American Metal Climax,	00
Inc	23
American Smelting & Kenning	
Co Jan 21, 22, 24, 30, 32, 34;	22
Feb.	
Atlas Copco IncOct	28
Atlas Copco Inc Oct Atlas Corporation July Beryllium Associates Feb	19
Beryllium AssociatesFeb	14
Boliden Mining	
Co	19
Bunker Hill Co June 20, Dec	24
Caland Ore Co. Ltd July Calumet & Hecla Inc Oct	22
Calumet & Hecla IncOct	11
Camp Bird Colorado, Inc Feb Campbell Chibougamau Mines	16
Campbell Chibougamau Mines	
LtdOct	12
Copper Range Co Aug 11, Oct	11
Chambishi Mines LtdJuly	19
Cyprus Mines Corp Apr 18, Aug	12
D.M.B.D. Mining Co June	21
Copper Range Co Aug 11, Oct Chambishi Mines Ltd July Cyprus Mines Corp . Apr 18, Aug D.M.B.D. Mining Co June Duval Sulphur and Potash	10
Co Apr 18, Oct 11, Dec. Giant Mascot Mines Ltd May	13
Giant Mascot Mines Ltd May	28
Glebe Mines LtdApr	24
Gold Fields Mining & Industrial	***
LimitedApr	18
Hecia Mining Co Aug	11
Homestake Mining CoNov	19
Gold Fields Mining & Industrial Limited Apr Hecla Mining Co Aug Homestake Mining Co Nov Homestake-Sapin Partners Mar Howe Sound Co Apr Inland Steel Co July Inspiration Consolidated Copper Co Sept International Minerals & Chemical Co Nov	22
Howe Sound CoApr	22
Inland Steel CoJuly	44
Inspiration Consolidated Copper	28
International Missauls & Charles	20
ical Co	20
ical CoNov Jefferson Lake Asbestos	20
Corn Sant Aspestos	22
Corp Sept Kennecott Copper Co. Feb 24, Mar 34, June 19, July 19, 27, Aug 11, 22, Oct 24, Nov 19, 28, Dec Lucky Friday Silver-Lead Mines	day fac
Mar 34 June 19 July 19 27 Aug	
11 22 Oct 24 Nov 10 28 Dec	24
Lucky Friday Silver-Lead Mines	
Co Mar	28
Co. Mar Magma Copper Co. May McKinney Mines Inc. Oct	20
McKinney Mines Inc Oct	11
Mechanical Excavators IncSept	36
	19
Minera Frisco S A Nov	25
Newmont Mining Corn Sent	35
Minera Frisco S. A. Nov Newmont Mining Corp Sept Northgate Exploration Ltd. May Texas Gulf Sulphur Co. July	19
Texas Gulf Sulphur Co. July	20
Tsumeh Corp Mar	22
Tsumeb CorpMar Two New Mines for Duval	
Sulphur and Potash Dec	13
United States Smelting Refining	-
Sulphur and Potash Dec United States Smelting Refining & Mining Co Nov	19
United States Steel Corp., Colum-	-
bia-Geneva Steel Div Oct	16
United States Steel Corp., Columbia-Geneva Steel Div Oct White Pine Copper Co Feb	14
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

MONEY MAKING METHODS

MONET MAKING METHODS	
Cable Clips Hold Backup Mirror, Cheap to Install July	36
Foam Plug Seals Off Mine Fires at Zinc CorpFeb How Kennecott Uses X-Ray	27
to Increase Molybdenite Recov-	31
Plastic Sections Welded Together to Form Acid Proof RIP Bas- ketJuly	32
Portable Bridge Protects Hoses and Cables During Repair	
Jobs July Ripping and Scraper Loading Speeded Getchell Gold Strip-	36
ping	53
Raise PlatformFeb Simple Battery Rack Holds	27
Cap Lamp Battery Upright in Auto	
Filters Lengthen Diesel Engine Life	33
Fast Tunnel DrivingJuly TV Saves Hoist Operator	32
Many Steps in Checking Skip Pocket July	

^{*} News includes picture.

LOCALITY INDEX States

ARIZONA

Christmas Start-up Means More Copper for Inspiration Sept Duval Makes Three Major Dis-	28
D.M.B.D. Makes Success of 60-	18
Ton a Day Cu-Moly Opera- tion	27
Dick's Copper-Zinc Ore Aug How Mission Mill Was Designed	12
After Pilot TestingJan How Recent Magma Mine	30
Fire Was Brought Under Con- trol	20
cilities at HaydenJuly Mill Circuit Flexibility with Auto-	27
matic Density Control Jan Mission Means More Mining by	34
ASARCO Jan New Copper Mine for Duval	21
Sulphur and PotashDec	13
Ore Body is Porphyry Copper. Jan Radiation Device Helps Kenne-	22
Cott Save 5,000,000 Gallons of Water a DayFeb Ray Produces Milk of Lime	24
Reagent	34
Shovel-truck Pit with Easy StrippingJar	21
Three-stage, Open-circuit Crushing at MissionJar	32
CALIFORNIA	

CALIFORNIA

Asbest	tos	Awakens	Mother		
Lode	at	Jefferson	Lake's	New	
Mine				Sept	22

COLORADO

		Flotation	
Mill	 	Fe	b 16

IDAHO

Bunk	er Hill Mucks Inclined Shaft
With	CrydermanDec 24
Luck	y Friday's New Mill an Ex-
	e of Modern Design Mar 28
	Line Diamond Drilling
Goes	UndergroundJune 20

MICHIGAN

Copper	Range,	Ca	lumet	80		
	Exchang					
Lands					.Oct	1

MISSOURI

From Oates to Eminence: Another Missouri Lead Belt? Oct	20
Hecla Joins American	
Zinc for Major Missouri Explora-	
tionAug	1
Kennecott's Major Missouri	
Lead FindJuly	15

NEW MEXICO

Chino's "Program for Progress" Means Improved Mill-Smel-	
terAug	2
Duval Makes Three Major Dis-	
coveries-K2O, Cu, MoApr	1
New Potash Mine for Duval	
Sulphur and PotashDec	
Santa Rita: New Projects	-
and Equipment Improve Opera-	
tionsNov	2
	-

NEVADA

Beryllium Associates Develops Im- portant Chrysoberyl Ore Re	
servesFe	5 1
Duval Options Copper Canyon	1
Seeks Nevada Porphyry Cop	
per	
McKinney Mines Starts Develop	
ment at Atlanta MineOc	t 1

NORTH CAROLINA

					Agri-	
cultu	ral	Join	to	Inve	stigate	
					De-	
posit					. June	1

UTAH

How Modern Materials Han-	
dling Improves Smelter Metal-	
lurgyOct	24
How Utah Copper Division Uses	
New Equipment and New Mining	
Methods Dec	14
Kennecott-United States Smelt-	
ing Deal Will Enlarge Utah	
PitNov	19
Mi Vida's 10th Birthday:	
Charlie Steen Sells for Mil-	
lionsJuly	
Texas Gulf's Moab Potash July	20

WYOMING

** * ******	40				
Atlantic	City:	West's	First.	Ta-	
conite	Operat	tion or	Sc	hed-	
ule				.Oct	16

FOREIGN COUNTRIES

AUSTRALIA

Cyprus	Mines	-Utah	Cons	truc-	
tion-G	old Fi	elds Awa	arded	Aus-	
tralian	Iron (Concessio	n	.Арг	18

CANADA	
Caland Open Pits Now	
Major Source of Inland's Iron	
OreJuly	22
Canadians Sell UsOs at \$4.10 a	
PoundSept	21
Cut and Fill Stope Mechanized	
with Diesel EquipmentOct	12
How Britannia Mine Cuts	
CostApr	22
International Minerals Conquers	
Ouicksand at Canadian Potash	
ShaftNov	20
Success Comes to B.C.'s Most	
Famous Nickel Mine May	28

CUBA

Special	Havana	Report-Cuban	
Mining	Today .	Feb	1

EIRE

0.175.00							
Northgan	e-E	ire's	Maj	or	Lead	Dis-	
covery						May	15

UNITED KINGDOM

HMS	Drum	Makes	Three-	
produc	et Sepa	ration	Apr	24

MEXICO

244	EVIC	,					
						Tailing	
is	Fluor	rspar	Flo	at	Feed	Nov	2

NORTHERN RHODESIA

	Copperbelt	

L. E. B. 24			
Homestake to	Finance		
Phosphate-Potas	h Operation		
Peru		Now	1

SOUTH AFRICA

SOUTH MIK	100		
How Lorain			
Haulage Dr	ift 2,317	Feet in	27
Days		A	ug 26
Newmont's	South Al	rican Mi	ne
Expansions		Se	pt 35

SWEDEN

Autogenou	s Grinding	Installed at	
Vassbo		Sept	30
Vassbo: A	Autogenous	Grinding	
Liberates	Galena	Oct	19

COMPANY INDEX **United States Companies** (News Section)

Acid IncNov	49	
Admiral Consolidated Mng. July	54	
Alaska International Nov	47	
Alaska Mines & MineralsDec	35	
Alice Silver-Lead July	50	
Allied Mission Oil, Inc Mar	49	
Alpha Mineral CoOct	41	
American Agricultural Chemical		
June 19, July 49, Dec	38	
American Brass Co Sept	63	
American Chrome Aug 40, Sept	89	
American Cyanamid		
Feb 44, Mar 50, Sept 77, Dec 38,	39	
American Diatom Lan	50	

-A-

American Diatom Jan 58
American Metal Climax
Feb 44, Mar 23, Apr 39, June
42, 45, Aug 36, Nov 45
American Potash & Chemical
July 44, Aug 36, Sept 68
American Resources Sept 80
American Smelting & Refining Co.
Aug 36, 38, 39, Jan 57, 58, 67
Feb 22, 41, 47, Mar 47, Apr 18
39, 45, May 59, June 42, 44, 46

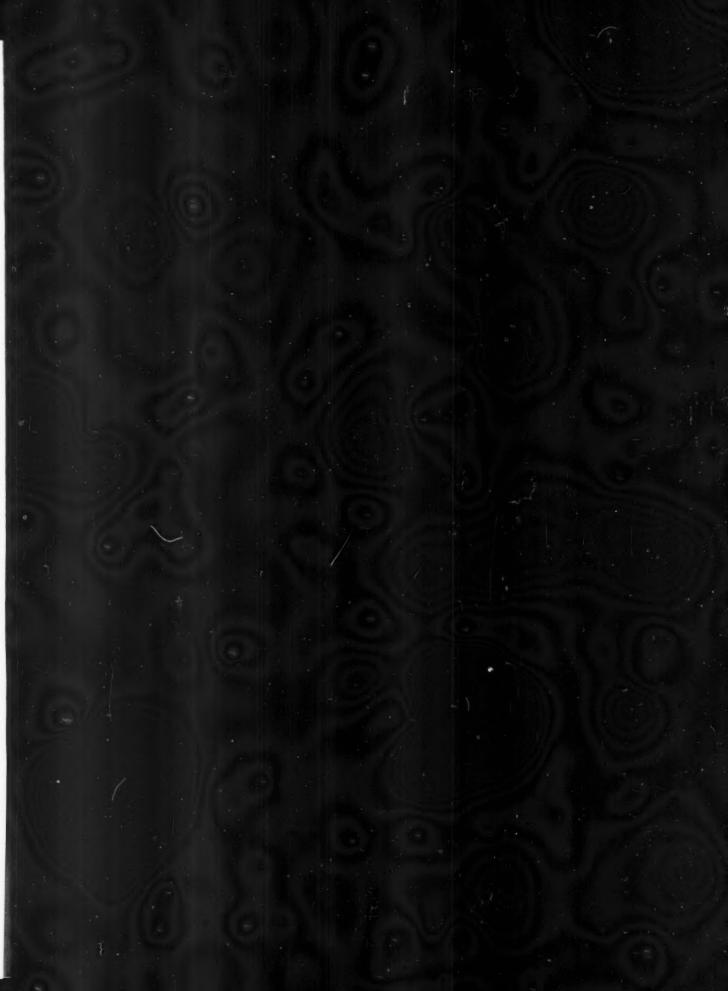
July 19, Sept 82, Oct 11, 38,	42
American Western Metals Mar	49
American Zinc of Tenn May	
American Zinc, Lead & Smelting C	0.
Jan 69, Mar 49, Apr 42, May	42
June 42, 43, July 45, Aug	43
11, Sept. 70, Oct 37, 40,	
Amity Mining and Exploration	

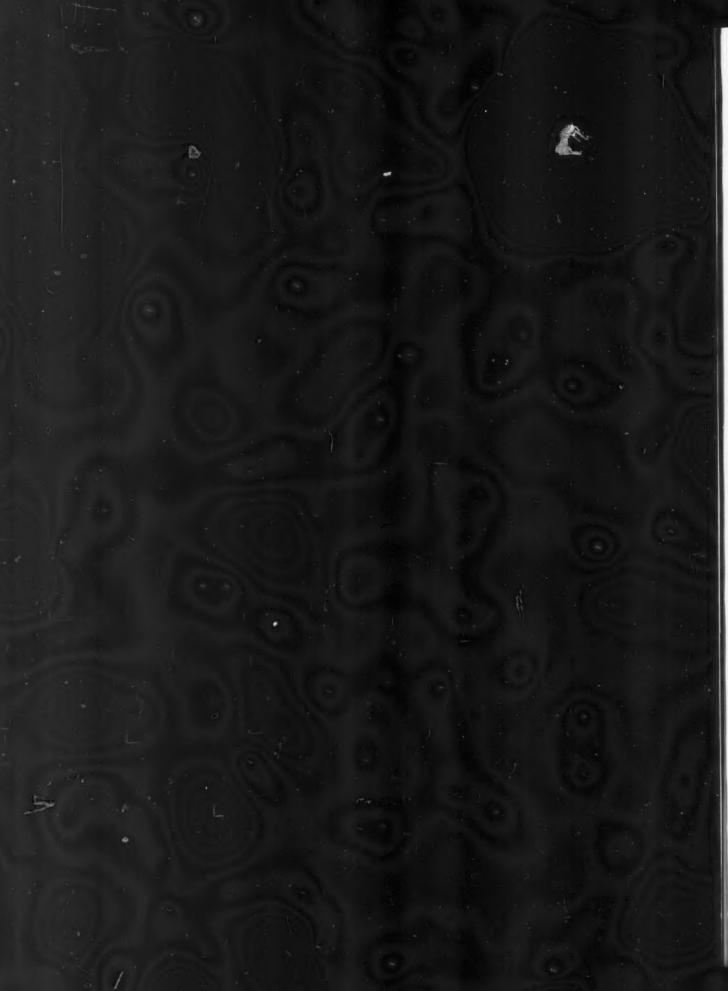
Amily Mining and Exploration
Co., Inc
11, Sept. 70, Oct 37, 30, 45
AMPCO Processes Corp Nov 45
Anaconda Co Jan 65, 66
Mar 21, 52, Apr 46, May 19**
59, June 41, 46, July 51, 52
Aug 33**, 40, 41, Sept 63, 86, 89
90, Oct 39, 44, Nov 43, 50, 51
Dec 39

Apex Smelting Co. Aug 37, Dec Appalachian Sulphides	41
May 42, July 44, Aug	11
Arizona Copperflood Co May	58
Arizona Cu. MinesSept	68
Arizona Mng Dec	13
Arizona Placers, Inc.	
Aug 35, Nov	47
Arkota Steel Jan 58, June	
Armco Steel CorpAug	
Atlantic Gold & UJuly 52, Oct	11
Atlas CorpOct	45
Atlas MineralsOct 45, Dec	41

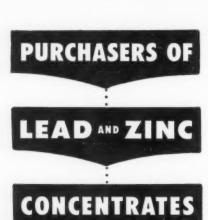
-B-	
B&H MinesNov	
B S & K Mng June 44, Sept	60
Bagdad Copper June 44, Sept	64
F. W. BailorApr	48
Banner Mng.	
Aug 35, Apr 39, May	58
Basic IncJuly 49,	52
Bay West Inc Apr. 39, May	59
Basic Inc. July 49, Bay West Inc. Apr. 39, May Aug 35, Sept 64, Nov Bear Creek Feb 39, June 19,	45
Bear Creek Feb 39, June 19,	50
July 19**, 41, 53, Aug 43,	40
Sept 86, Oct 38, Nov Roland F. Beers, Inc July	53
Roland F. Beers, Inc July	49
Benton Clay Co Mar	56
Beryllium Associates	
Jan 14, 15*, Feb 14, 15**, May	23
Beryllium Resources Sept	
Politica Section Oct	40
Bethlehem Steel Jan 59, Feb 44, Mar 49, June	42
July 45, Aug 36, Nov 48,	49
Black Bear Mines June	45
Black Bear Ag-Pb June	45
Black Rock Mng May	52
Blast Furnace ResearchNov	50
Boliden Mng. Co July	52
Boyles Bros Feb 40, May	51
Bristol Ag MinesMar	53
Brittain-Hendrickson	
Mining Co Dec	36
Bruch Ragellium May 41 Sont	95
Bunker Chance Mng July	50
Bunker Hill Co Jan 57, 62,	65
70, Mar 51, 52, Apr 45,	46
Bunker Chance Mng July Bunker Hill Co Jan 57, 62, 70, Mar 51, 52, Apr 45, May 54, 60, June 46, July	50
Aug 38, 39, 43, Sept 63*,	80
Aug 38, 39, 43, Sept 63*, 82, Oct 42, 45, Nov 49, 51, Dec	39
82, Oct 42, 45, Nov 49, 51, Dec	39

Calif Allowial Mag Aug !	36
Calif. Alluvial Mng Aug Callahan Industrial Jan	0.3
Cananan Industrial	59
June 4	14
Callahan Mng Jan 59, June	46
Calumet and HeclaOct	11
Commercial C. I.	41
Camp Bird Colo Oct	
J. C. CarlileJune	45
J. C. Carlile June Carter Creek Holding Apr	46
Celtor ChemicalApr 41, Oct : Cementation CoJune	37
Camentation Co lune	41
Cementation Co June	
	53
Cerbat Mng. & Milling May	54
Aug :	35
Cerro Verde Mag Feb	48
Certo verde Milie	
Cerro Verde Mng Feb Chapman Wood & Griswold July	53
Chemical Mng May	58
Chester Mng Jan Childs-Aldwinkle Mar 47, Dec	63
Childs-Aldwinkle Mar 47. Dec	36
China Mines Dec	40
Clauloon II Fab 47 Out	37
Clayloon Ureb 47, Oct .	
Chino Mines Dec Clayloon U Feb 47, Oct Clayton Silver Jan 62, Mar	51
lune 46. Oct	3.7
Clearwater MinesNov	54
Cleveland-Cliffs Jan 63, Feb Mar 47, 51, Apr 45**, May July 51, Sept 82, Oct 43, Nov	45
M 47 51 A 4500 Mars	43
Mar 47, 31, Apr 43-1, May	
July 31, Sept 82, Oct 43, Nov :	50
	39
Climax Molybdenum Jan Apr 39, 44, May 41, 51, June 39, Sept 75, Oct 41, Nov 45, Dec 37, Climax U Mar 49, June 39,	60
Apr 39 44 May 41 51 June 39	45
Sant 75 Oct 41 Nov 45 Dec 37	38
CE - 77 M 40 Y - 20	
Climax U Mar 49, June 39,	50
July TJ, NOV	48
Coalinga Asbestos Jan 59, Feb	41
Mar	48
Coeur d'Alene Mines Corp Feb	
	54
ow or any	
Collier Carbon & Chem June	45
Colo. Aspen Mng	44
Colo. Fuel & Iron Apr 39 May	41
July 45 Nov	45
Columbia Commun Dia Fab	4.7
Columbia-Geneva Div Feb	11
Mar 36, Apr 48, Oct	41
Col-U-Mex U Corp May	52
Columbia-Geneva Div. Feb. Mar 56, Apr 48, Oct. Col-U-Mex U Corp. May Commonwealth Mng. Feb. Commonwealth Ag. Apr 48, May	44
Commonwealth Ag Apr 48 May	59
Sept 1	82
	38
Conjecture MinesJune 45, Dec	
Consolidated Aluminum Mar	50
Consolidated Eureka Mng. Co.	
Consolidated Eureka Mng. Co. Oct 37, 44, Nov	51
Consolidated Parnett Corp.	
June 45, Sept	75
Com Ed and Cod June 45, Sept	50
Consolidated CoalMay	38
Continental Materials	
June 47, 50, Aug Continental Titanium Apr Continental U May 53, June	41
Continental Titanium Ang	45
Continental II May 52 Iver	50
Cu Canyon Co	11
Cu Canyon Co Oct	H
** Map or diagram with report.	
map or diagram with report.	





Cu Range Co. July 44. Aug 11, Oct 11, 42 Cornucopia Gold Mines June 49 Coronado Cu & Zn Nov 47 Cotter Corp. Jan 60, May 39*, June 45 ————— Dawn Mng Feb 47, May 60 Day Mines Inc Feb 47, May 60 Aug 43, Sept 96, Oct 42, 45 Daybreak U. Feb 47, May 60, Aug 40 De Coursey-Brewis Ltd Nov 45 Delhi-Taylor Oil Dec. 41 Del Oro Mines Aug 35 Delles & Sullivan Mng. & Milling	45, Oct 37, 40, 42, Nov 49 Hercules Mines Co. Feb 45 Hidden Splendor Mng. Jan 69, Feb 41, Mar 48, 53, July 19 Sept 68, Oct 45, Nov 45, Dec 41 Hindman Industries Feb 41 Homestake Mng. Apr 48, May 53, Aug 43 Homestake-Sapin Partners Feb 46, Mar 22* May 58, July 53 Homestake-New Mexico Partners Feb 46, June 40 Howe Sound Co. Mar 53 Humboldt Mng. Mar 44, 47 Hunting Geophysical Feb 40 Husky Oil June 45 Husky Oil Nov 49	Maco Construction Oct 45 Magdalena Perlite Aug 41 Maggie Mine Mar 49 Magma Copper Mar 43 Jan 58, Feb 40, Mar 47, Apr 30 May 23 Magnet Cove Barium June 42 Maley Mng Sept 79 Maley Mng May 32 Manganese Inc Mar 53 Mauthe Mng Jan 64 Meramee Mng Jan 64 Meramee Mng Jan 64 Metale Bross Drilling Nov 48 Metals Engineering Apr 39 Metler Bross Drilling Nov 51 Meid-Continent Coal & Coke Dec 38	July 41, Sept 64, 67, Oct 39, Nov 45 Phillips Petroleum May 58 June 39, 49, Sept 90 Pickands Mather Jan 64, Feb 47 Pinnacle Exploration Aug 37 Pioneer Mng. Feb 45 Pitkin Iron Corp. Oct 41, Dec 37 Pittsburgh-Pacific Feb 45 Pittsburgh Silver June 46 Platoro Mng. Co. Feb 40, Dec 36 Plotash Co. of America June 41 Princeton Mng. Dec 38 Puritan Mng. Dec 38 Puritan Mng. May 49
Delno Mine	Color Color Color Color Color	Midmite Mines May 60, Aug 43 Midwest Mng. Corp. Oct 44 Milca Mng. Feb 40, Dec 36 Miller Chemical Nov 50 Mineral Concentrates & Chemical Feb 43, Apr 44**, May 52 Mineral Mountain Sept 95 Mineral Eng. Jan 64, Mar 51, July 53 Mineral Development Mar 54, May 53 Mines Development Mar 54, May 53 Mines Management Oct 45 Minnesota Mines Oct 41 Mitchell Co. Aug 35 Mitsubish Shoji Kaisha Ltd.	R. G. Mng. Sept 82 Rare Metals Corp. of America Feb 40, Nov 47 Rare Metals July 41 Republic Steel Jan 61, Mar 44 Aug 38, Oct 43 Reserve Mining Feb 45, Mar 44 Reynolds Metals Jan 59 Rhude & Fryberger Aug 39 Rhude & Fryberger Aug 40 Rice Development June 50 Richfield Oil Nov 53
E—F Eagle-Picher Co Feb 43, Mar 49 June 44, Oct 40, Dec 37, 41 East Coast Smelting & Chemical Co Aug 33 East Coeur d'Alene Ag Mines Feb 45, Apr 46, Dec 39 Erie Mng, Co May 43, Aug 40 Empire Iron Mng. Apr 45.6% May 43, Oct 43 English Oil Co Jan 69 Eureka Standard . Aug 35 Eureka Corn . May 55	Apr 41, June 44 July 41 Sept 67, Oct 39, Dec 36 Intermountain Chemical Feb 47 International Harvester Apr 45° May 43, Oct 43, Dec 39 Int'l Min'ls & Chem'l. Dec 13 International Resources Mar 54, Sept 92 International Smelting & Refining July 50, Oct 44 Iron Exploration Co	Molybdetum Corp. of America Jan 67, Mar 48, July 43, Aug 42 Monsanto Chemical Mar 51 Montana-Coeur d'Alene Jan 65 Montana Phosphate Products Moore Co., W. S July 51 Morrison-Knudsen. May 54, Oct 41 Mt. Andrew Mng Oct 38 Mt. Wheeler Mines Oct 44	Rico Argentine Mng
English Oil Co. Jan 69	J_K	-N-	-S-
Eureka Corp. May 55 F&S Mining Company Sept 89 Fairchild Aerial Surveys Apr 42 Farmers Union Service Nov 53 Federal-Radorock-Gas Hills Parts Federal Resources Jan 62, Mar 51 54, Apr 45, May 59, June 45, 46 Aug 38, Sept 95, 96, Oct 42, Dec 38 Feldspar Corp. Nov 49 First Amer. Solution Mag. May 58 Fisher Contracting Dec 40 FMC Corp. Mar 51 Ford Motor Co. Jan 63, Mar 44 Four Corners Oil & Minerals July 45, Oct 45 Freeport Sulphur Co. Jan 69, Feb 14 43, Mar. 55, May 58, Sept 68, Dec 37	Jackson Iron Co. Apr 45 Jefferson Lakes Asbestos Jan 59 Johns-Manville Jan 59, Mar 48 Jones & Laushlin Steel Mar 21** May 43, 44, Sept 85, Oct 41, Dec 39 June and July Mine Mar 49 K A O Company Mar 49 K S.N. Company Sept 90 Kaiser Engineers June 39 Kaiser Steel Feb 41, July 43, 44 Aug 36, Sept 68, Dec 36 Kawneer Company Aug 37 Kendrick Bay Mng Nov 45 Kenite Corp. Aug 43 Kennametal Inc. May 58 Kennecott Copper Jan 66, 67, Feb 39, 46, Mar 53, 54 55, Apr 41, 47, 48, May 52, June 42, 50, July 43, 46, 49, 53, 54, Aug	Nancy Lee Mines Apr 46, June 46 Nash Mines Apr 39 Nat'l Distillers & Chem. Apr 48 National Gypsum Co. Dec 36 National Lead Feb 15, Apr 42, Sept 80 National Potash May 58, June 47, Sept 90 National Steel Corp. Mar 44* Natomas Co. Mar 44, Nov 43 Nearing Bros. Logging July 50 Nevada Iron Ore Aug 33 Nearing Bros. Logging July 50 Nevada Scheelite Jan 66, May 55 New Era Mng. July 19 New Fair Mng. July 19 New Hair Mng. & Chem. Oct 39, 40, Nov 47, 50, Dec 36 New Jersey Zinc.	Sabre-Pinon
-G-			Silver Dollar Mng Jan 63 Silver Hill Mines Mar 56, May 60 Silver Mark Mines June 47, Aug 40
Gaddis Mng. Co Nov 48, 49 General Astrometals Co Sept 63 General Beryllium Corp. Mar 55 General Beryllium Corp. Mar 55 General Electric Co	90, Oct 11, 38, 39, 44, Nov 45, 47 Kermac Nuclear Fuels Jan 67, Feb 46, Mar 51, 54, Apr 45, May 51, 58, June 49, Sept 90 Kermac Potash Apr 47, Nov 53 Kern County Land Co Jan 59 June 44 Kerr McGee Oil Mar 54, Apr 42, 45, 47, May 53 Keystone Silver Apr 46, Sept 82 Knob Hill Mines Feb 47, July 54, Oct 45 Knox-Arizona Copper Mar 47 ——— L-D Mines Feb 47, July 54, Aug 43, Sept 96 Lake Shore Mar 44*	May 42, 52, June 42, July 44 Aug 38, Sept 79, 80, Nov 48 New Market Zinc June 43 New Park Mng. Feb 46, May 52 June 46, July 54, Sept 95 New Potosi Mine Oct 37 Newmont Exploration Mar 53 Newmont Exploration Mar 53 Newmont Mng. Corp. Jan 58, Feb 19, Mar 23, 53, May 53, 55, 60, July 14, Aug 35, Nov 43 North Continent Mines Jan 60 Northern Continental Aug 41 Northern Facific Sept 80 North Range Mfg. July 51 Northfield Mines Mar 23 North Range Mng. Oct 42, 43 Northwest Magnesite May 60 Northwest Magnesite May 60 Northwest Prospecting Jan 62 Northwestern Construction Aug 35 Nye Metals, Inc. Aug 37, Sept 75	Silver Mark Mines. June 47, Aug 40 Silver Star-Queens Mines. Aug 38 June 46, July 50, Oct 42, Dec 38 Silverstone Mines. July 50, Sept 82 Silverton Mng. & Milling Nov 47 Simplot Co. J. R. July 52 Skelly Oil Co. Oct 45 Snowbird Mine June 46 Snyder Mining Aug 39 Sonoma Quicksilver Mines Oct 40 Southern Development Feb 44 Southern Pacific Aug 41 Southwest Potash. June 47 Southwest Potash. June 47 Southwest Potash. June 47 Space Metallionics. May 60, Aug 38 Spokane Nat 1. Jan 65, Feb 45 Mar 52, Apr 46, Aug 40, Sept 86, Dec 39 Standard Metals Feb 46, Mar 49 May 51, 52, July 46, Sept 70, Oct 41 Standard Siag Co. June 47, July 52 State Mine
W. R. Grace Co Mar 48, May 54 Granite City Steel	Lance Corp. Feb 46 Lawrence Lemire & Son Jan 62	0.0	State Mng
Grante City Steel Grante City Steel Green Mar 49, Sept 70, Oct 37 Green Bag Cement Aug 37 Green Mt. Development July 46 Green Mt. U May 53 Gunnison Mng Mar 54, May 51, 53	Leonard Construction May 22 Leprechaum Mng. & Chem. Jan 66 Lewis-Dickerson Dec 38 Lisbon U. Dec 41 Little Hills Jan 58, Aug 35 Little Squaw Mng.	O—P Offshore Navigation	State Mag Jan 65 Stauffer Chemical Feb 47** July 54, Sept 63, Oct 45 Stearns-Roger Mfg Jan 67, 69 Mar 55, Aug 33, Oct 41, Nov 19 Dec 13, 41 Sterling Oil Nov 45 Stovall Copper July 41, Dec 36 Strong and Harris July 41
-H-	Logmaster Services Feb 46 E. J. Longyear Co. May 42 Logitt May 56	Ozark Lead Co. July 19** Pacific Antimony Metals July 52 Pacific Isle Mng. Aug 42, July 51	Sunday Lake Iron Jan 64 Sunshine Consolidated June 45 Sunshine Mng. Jan 63, Feb 44 June 45, 46, Aug 35, 38, Sept 82
Hand Mng. Jan 65 Handy and Harman Jan 57 M. A. Hanna Co. Jan 59, 63, Mar 44* Hanna Mng. Co. Feb 45, Mar 44*, 51, May 44	E. J. Longyear Co. May 42 Lovitt Mng. Feb 47, Mar 56 July 54, Aug 43, Sept 96 Lucky Friday Extension Apr 46 Lucky Friday Silver-Lead Apr 45, June 46, July 50, Oct 42 Lucky Seven Mng. July 41	Pacine Minerals & Chem. Apr 48 May 60 Pamlico Mng. & Chem. June 19 July 49, Sept 79, Dec 38 Ralph M. Parsons Mar 21. Dec 41	Superior Oil Apr 48, Aug 42 Nov 53 Susquehanna Corp Apr 48, May 58
June 41 Sept 85 Nov 19	-M-	Parsons-Jurdan Contract Aug 41 Dec 41	Susquehanna-Western Mar 51 Aug 43, Nov 54
Hanna Ore Mng. Jan 63 Harrison Int'l Dec 40 Hawley and Hawley Luly 41 Heela Mng. Co Jan 55*, 63 Feb 46, May 52, 55, June 46, July 50, 54, Aug 39, 11, Sept 95, Apr	McCall Cotton Aug 34 McFarland & Hullinger Aug 35 McKinney Mines Oct 11 McLouth Steel Apr 45**. May 43, Oct 43	Paymaster Mines Aug 43 Pend Oreille Mines & Metals Penn. Geological Survey Sept 77 Petrotomics, Inc Oct 45 Phelps Dodge May 53, June 44	Swift & Co



BUNKER HILL

Producers of Top Quality Products

LEAD . TINC . CABRIUM . SILVER . LEAD AND LEAD ALLOY PRODUCTS . CHEMICAL PRODUCTS

WIRE PHONE WRITE ORE PURCHASING DEPT. • THE BUNKER HILL COMPANY Telephone: Sunset 4-1261 • P. O. Box 29, Kellogg, Idaho

INSPIRATION CONSOLIDATED COPPER COMPANY

Buyers of

COPPER — GOLD

SILVER

Ores and Concentrates

Address: Smelting Department
INSPIRATION CONSOLIDATED
COPPER CO.

Inspiration, Arizona

0.4	600
Oct 41,	42
Texaco Inc May	
Texas Gulf Sulphur. Jan 69, Apr	48
Sept 79, Nov 53, Dec 38, 40,	41
Texas Zinc MineralsFeb	46
May 52, June	50
Thomas Consolidated Mines	
June	49
Thornton Mine	49
Tidewater OilOct	45
Tin Mountain Mine June 49	
Tintic Standard MngAug 43,	35
Tinue Standard Ming Aug 45,	
Titanium DevelopmentApr	45
Toll MngJuly	50
Tonopah Belmont May	55
Tonopah Chemical May	55
Tonopah Mng May	55
Transarizona ResourcesApr	39
June	43
Travelers Oil & UMay	53
Tri-Nite Aug	43
Tri-State Zn Jan 61, Mar	50
	43
Apr 45, June	56
Triton Mng Feb 47, Mar	
July 50, 54 Aug 43, Oct	45
Triumph Mng May	60
Trout Mng Aug	41
Truitt & AssociatesOct	40
Tungsten Mt. MngJan 66, Dec	36

U

U-Tex OilAug	35
Union Carbide Nuclear lan	59
60. Feb 41. Mar 49. May 39*	41
51, June 50, July 45, Aug	35
Union Carbide Jan	61
United Lead-ZincJuly	50
United Nuclear Corp June	47
United Park City. May 52, Sept	95
United PlacerSept	64
United States BerylliumFeb	43
Apr 44. May	52
U.S. Borax & Chem June 47,	49
Sept 68, 90, Nov	47
U.S. Bureau of Mines Sept	77
79.	82
U.S. Geological Survey Sept	80
U.S. PotashJune	47
U.S. Smelting, Refining & Mng.	4,
Jan 70, Feb 39, May 52,	55
Nov 19, Dec	35
U.S. Steel Corn. Apr. 45, 47	48
U.S. Steel Corp Apr 45, 47, June 47, Aug 43, 41, Nov	50
United Verde CuAug	35
Universal Minerals & Metals	
Apr	42
Uranium Discovery & Dev Apr	46
Uranium Reduction Jan 69, Mar	55
May 52. June 40, 50, July	19
May 52, June 40, 50, July Sept 95, Oct	45
Uranium MinesApr	46
Uranium Mines Apr Utah Construction & Mng Feb	45
Apr 47, Oct 37*, 38, Nov	45
Utah Potash Co Mar 55, Apr	48
Ute Uranium	
Utex Exploration. Jan 69, Mar	

V-W-Y

Vanadium CorpMar 49, Apr Vermillion GoldFeb 45, June	48
Vermillion GoldFeb 45, June	43
Sept 64, Oct	44
Virginia-Carolina Chemical Corp.	
Apr 45, Aug 37, Dec	38
	45
Vitro Minerals May 41. June	50
Aug	42
Vitro Corp of AmericaOct	45
W.C.T. Engineering June Wah Chang Smelting & Refining	50
Wah Chang Smelting & Refining	-
May	60
Jack Waite MngMay	59
Walton-Kearns Dec	34
Washington Testing Lab May	60
Webb & Knapp Co Apr	46
Wells CargoFeb	41
West Range Mng Feb 40, Sept	67
West Range MinesOct	38
Western AlloysSept Western Beryllium CorpApr	80
Western Beryllium Corp Apr	44
Western Equities Feb 40, June	47
Western Au & U . Feb 40, June	44
Western Knapp Eng Mar	95
western knapp Eng Mar	35
Western Minerals Jan	65
Western Mng	19
Western Mng	4
Aug 43, Oct 45, Nov	5
Western Uranium July	5
Whelchel Mines	5
White Caps Au Mng Sept	q
White Pine Cu lan 14*	3
White Pine Cu Jan 14*, Feb 14**, 15, Mar 44*, Apr	4
Inly 44 Aug	1
Wonder Mng. CoJan	6
Woodmont, IncJune	5
Woodward Iron Co July	4
Worcester Mines Mar 49, July	4
Youngstown Sheet & Metal Tube	
Mar	4

* News includes picture.

COMPANY INDEX

Foreign (News Section)

-A-

Alumina Caride (Cuba)Jan	69
Aluminum Co. of Canada July	
Aluminum-Industrie-Aktien	
Gesellschaft Mar 50, June	
Arktisk Minekompagni A/S Mar	
Arctic Mining Co Apr	44
Atlas Consol. Mng & Develop-	
mentApr	18

-B-

Boliden M	ng. Co.	Mng May	52

-C-

Caland Ore Co Oct 43 Cerro CorpJan 57, Apr 48
Chambishi Mines July 19** Consolidated Goldfields Apr 45
June 43
Consolidated Mng. & Smelting of CanadaJune 42, 44
Crest Exploration Sept 63**

D-E-F-G-H-I-J

-MMcKinney Gold Miney Tuly 52 53

MCKinney Gold Mines July 32,	23
Oct	11
Abe W. Mathews Eng Jan	59
May 43, 44, July 45, Sept	85
Mesina (Transwall) Devel July	52
Compania Metalurgica Mexicana	
Aug	46
Mexico-Pacific Mng Apr	
Midepsa IndustriesAug	33
Compania Minera de Guazapares	
Aug	46
Compania Minera La Nena. Aug	
Compania Minera de Zacatecas	4.5
Aug	11.
	40
Minerales Industriales del Peru	
Nov	
Mitsubishi Metal Mng Apr	19
Moa Bay MngFeb	
Mt. Goldsworthy Joint Venture	
Apr 18	eeg
Mt. Isa Mines Feb 41. Apr	10
Mit. Isa Milles Feb 41, Apr	10
Oct	31

_N.

Nippissing Mines	41
Jan 61, July 44, Oct Noranda Mines Mar 47, Sept Oct	6
Nordisk Mineselskab A/SMar	23
Northgate Explorations Mar	

O-Q-R-S-T-U-W-Y

o'Okiep Copper CoMar 23
May 53
Quebec Cartier Mng July 52
Rhodesian Selection Trust Mar 25
Rio Tinto Australia July 45
Rio Tinto-Zinc Corp Nov 19
A. J. Ross & Assoc. of Toronto
Nov 19
S. B. A. (Belgium)June 45
Sigma Mng July 5
Sumitomo Metal Mng Aug 3: Steep Rock Iron Oct 4:
Toronto Gold Market May 39
Tsumeb Corp
Union Miniere du Haut-Katanga
Feb 37**
Werner Lake Nickel Mines Apr 4
Western Reefs Exporation and
Dev
Yankee CanuckSept 8

^{**} Map or diagram with report.

